REMARKS

Claims 1 through 25 are in the application. Claims 1 and 17 were previously presented, and claims 2-16 and 18-25 remain unchanged from the original versions thereof. Claims 1, 17, and 25 are the independent claims herein.

No new matter has been added to the application as a result of the present Response.

Reconsideration and further examination are respectfully requested.

Claim Rejections – 35 USC § 102(e)

Claims 1-25 are rejected under 35 USC 102(e) as being anticipated by Bloebaum et al. (hereinafter, Bloebaum). Applicants respectfully traverse this rejection.

Bloebaum discloses a method and system for determining a location of a mobile station including a wireless network transceiver and a GPS receiver (i.e., a GSM-MS). The GPS receiver of the GPS-MS is assisted (i.e., assisted-GPS or AGPS) in determining its location using assistance information received from the wireless network, namely a base station. (See Bloebaum, col. 3, ln. 61-col. 4, ln. 14; col. 5, ln. 65-col.6, ln. 2; and FIG. 1) According to Bloebaum, a base station BTS 20 obtains knowledge of an absolute (GPS) time base. (See col. 14, ln. 5-12) The base station further receives an assistance message from a BSC (Base Station Controller) 22 including accurate absolute (GPS) time t_1 and translates absolute time t_1 (GPS time base) to a derived air-interface (GSM network) time base. The base station provides this updated assistance information to the wireless (e.g., GSM) network. (See Bloebaum col. 14, ln. 31-63) The GPS-MS receives the assistance information (i.e., timing information) from the base station of the wireless network and uses it to acquire

and make measurements on individual satellite signals in a composite GPS signal. It is noted that the GPS-MS only operates in the network time base. (See col. 15, ln. 24-29)

Regarding the GPS-MS making measurements using the assistance information from the base station, Bloebaum discloses that the GPS-MS receives timing information, t_1, from the base station at step 2 of FIG. 3, as discussed at col. 15, ln. 38-41. The GPS-MS then determines its current time, t_2, in terms of derived time base parameters, FN_2, TN_2, and BN_2 and calculates an estimate of the difference $\Delta t = t_2 - t_1$.

Thus, a primary aspect of Bloebaum is that the methods and systems therein receive accurate absolute timing information from the base station. The timing information from the base station is formatted in an air-interface time base understandable by the GPS-MS and provided to the GPS-MS from the base station BTS 20.

Referring to the claims, the Office Action states that Bloebaum discloses the GPS-MS detecting a signal containing accurate timing information from a source other than the base station. The Office Action relies on the Bloebaum disclosure that the GPS-MS acquires and measures individual signals of the (GPS) satellites. (See Bloebaum, col. 16, ln. 5-20) However, as mentioned above and discussed in greater detail below, the assistance information, including timing information, is received by the GPS-MS from the base station and provides accurate timing information to the GPS-MS. The GPS signals received by the GPS-MS are not accurate timing information signals of Bloebaum. The accurate timing information is received from the base station by the GPS-MS and is used to calculate a derived time in GSM network terms. The assistance information broadcast by the base station BTS 20 includes the accurate timing information (e.g., t_1). The assistance information broadcast by the base station BTS 20 includes the accurate timing information (e.g., t_1).

Bloebaum discloses how the GPS-MS uses the assistance information broadcast by the BTS 20 (i.e., base station) to acquire and make measurements on individual

satellite signals in a composite GPS signal, in reference to FIG. 3 thereof. In describing of how the GPS-MS uses the assistance information from the base station, Bloebaum discloses that the GPS-MS begins acquiring and measuring individual signals of satellites indicated in a visible list at step 5 of the description. (See Bloebaum, col. 16, ln. 14 – col18, ln. 22) Bloebaum discloses in steps 5(a)-(c) that the individual signals of a composite satellite signal may be measured by (a) computing an estimate of a frequency offset, (b) search some portion of code for the first signal using the estimated offset and a bit-phase, and (c) if necessary, perform, bit synchronization to resolve any ambiguity in the bit timing (See Bloebaum, col. ln 14-67) Bloebaum also discloses repeating steps 5(a)-5(c) in the instance a satellite is not acquired in an initial operation of steps 5(a)-5(c). (See Bloebaum, col. 17, ln. 1-6)

However, it is respectfully submitted that Bloebaum does not disclose detecting signal data containing accurate information from the satellite signal, as alleged by the Office Action.

Moreover, Bloebaum discloses that the GPS-MS does not need to have an accurate reference to the absolute (GPS) time because the GPS-MS performs calculations and measurements relative to time based on network events. (See Bloebaum, col. 13, ln. 17-26) That is, there is no need for the GPS-MS to have an accurate reference to accurate timing information from the GPS source, a source other than a base station. This statement is consistent with Bloebaum's disclosure that the GPS-MS receives accurate timing information, t_1, from the base station, BTS 20. (See Bloebaum, col. 15, ln. 24-29)

In contrast to the cited and relied upon Bloebaum, embodiments of the claimed invention of claims 1 and 17 obtain precision network timing by associating accurate timing information derived from signal data received at a mobile unit, from a source other than a base station, with base station timing information. For example, some embodiments (such as recited in independent claim 25 and other dependent claims)

obtain precision network timing by comparing base station timing with GPS signal data (i.e., signal data received from source other than a base station).

Applicants further note that Bloebaum does not disclose or suggest the claimed "updating of network timing information for the base station". Contrary to the Office Action's characterization of Bloebaum, Bloebaum discloses calculating a position of the GPS-MS from measurements made by the GPS-MS, not updating network timing information. The portion of Bloebaum relied upon for disclosing the updating of the network timing information instead discloses calculating position information based on correcting code phase measurement, computing a range difference, etc. (See Bloebaum, col. 19, ln. 14-57) There is no disclosure or suggestion to update the timing information of the wireless network in Bloebaum.

The claimed system that obtains precision network timing by comparing timing information received at a mobile unit and derived from a source other than a base station with base station timing information is simply not the same as the cited and relied upon Bloebaum system that: (1) performs a timing translation between timing information based on an absolute time (GPS) base and a network time base wherein a GPS-MS receives precision, accurate timing information from a base station; and (2) does not update network timing information for a base station based, let alone based on the claimed association data. Applicants respectfully submit that claims 1, 17, and 25 are patentable over Bloebaum at least for the reasons discussed in detail above.

Bloebaum's system that obtains precision location of a GPS-MS by an assisted-GPS (AGPS) method that uses accurate timing information from a base station appears to actually teach away from Applicants' claimed system the receives accurate timing information from a source other than a base station and that updates timing network information. Furthermore, Bloebaum does not even appear to consider or appreciate a need to update network timing information. Bloebaum provides methods wherein accurate timing information is received by the GPS-MS from a base station.

Applicants respectfully submit that claims 1, 17, and 25 are patentable over Bloebaum at least for the reasons discussed in detail above. It is also respectfully submitted that the dependent claims 2-16 and 18-24 are also patentable over the cited and relied upon Bloebaum. Accordingly, the reconsideration and withdrawal of the rejection of claims 1-25 under 35 USC 102(e) is requested, as is the allowance of same.

CONCLUSION

Accordingly, Applicants respectfully request allowance of the pending claims. If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned via telephone at (650) 943-7405.

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